

Labour market success of vocational and higher education graduates: Summary and main conclusions

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The educational attainment of the Estonian population has risen. The share of people with basic or general upper secondary education has decreased since 2012, while the share of people aged 25 and over with professional qualifications has increased. An analysis of employment and income data for 2017 indicated that employment rates are high. Income for graduates of all levels of education has increased compared with 2016. Both income and the employment rate, calculated by using the 'labour market performance' method, suggest that the higher the educational attainment, the more likely a person is to be successful in the labour market.

The key conclusions of the analysis of income year 2017 are as follows:

Employment and income

- **77% of those that completed vocational and higher education between 2005 and 2016 were in employment in 2017:** 74% of graduates from vocational education and 80% of graduates from higher education. The principle holds that the higher the level of educational attainment, the higher the employment rate. The employment rate for men is higher than for women – 81% and 76% respectively.
- **Salaries for those that completed professional education between 2005 and 2016 are 5% higher than the national average gross monthly salary in 2017.** The average income from employment of people with completed higher education exceeds the national average for Estonia by 20%. Compared with 2016, the income from employment of people with completed professional education has increased nearly 8%. As regards graduates from vocational education, the highest earners are those that have completed vocational education based on secondary education (€1,010 per month); in higher education, doctoral programmes and integrated bachelor and master programmes have the highest graduate salaries (€1,939 and €1,819, respectively).
- **Technology education guarantees higher income.** Degree programmes in the fields of ICT, transport services, security services and technology had the highest graduate salaries in 2017. Arts graduates had the lowest salaries. In the field of vocational education, programmes in the fields of security services, fisheries, forestry and technology had the highest graduate salaries. Graduates from personal services or welfare programmes had the lowest salaries.

Professional employment in the labour market: examples of different professions

- **Security services, ICT, health and education programmes had the biggest share of graduates in jobs linked to their field of study.** In 2017, more than half of graduates from health and welfare programmes (54% and 58%, respectively) were employed in the fields of health and social welfare. 78% of graduates from security services

programmes were working in the field of public administration and national defence in 2017. 75% of graduates from teacher training programmes in higher education were employed in their field of study. 54% of ICT graduates worked in the field of information and communication; 76% of health graduates were employed in the field of health and 86% of security services graduates were employed in the field of public administration and national defence.

- **In 2017, one in three graduates from vocational hospitality programmes (2005–2016) was employed in the field of hospitality.** More than 40% of those who graduated in 2016 had a job in the field of their studies. Nearly one in six hospitality graduates (regardless of the year of graduation) works in retail.
- Programmes in social and behavioural sciences as well as business and administration programmes provide students with universal skills that can be used in various sectors of the economy. **Graduates from social and behavioural sciences programmes and business and administration programmes are distributed across various fields of activity.** Nearly one in five graduates in social and behavioural sciences is employed in the public sector, while the share of business and administration graduates in the sector is about 12%. 14% of all social and behavioural sciences graduates (2005–2016) worked in the field of education. This sector attracts primarily recent graduates (2016) – 17%. Business and administration graduates work mainly in commerce-related jobs – 17% of all graduates between 2005 and 2016.
- **Engineering graduates are concentrated in the processing industry, engineering, professional activities, research and technology. ICT graduates are employed in the field of information and communication.** Nearly 30% of all engineering graduates between 2005 and 2016 are employed in the processing industry. 15% of graduates are engaged in professional activities, and research and technology, in particular in the fields of technical design (7% of those who graduated in 2016) and architecture (2%). Employment in the field of engineering is at the same order of magnitude (15%) regardless of the year of graduation. Just over 50% of ICT graduates work in the field of information and communication, while about 10% are employed in the public sector (public administration, national defence) and 7% in the field of finance and insurance. 37% of graduates of 2016 are employed in programming.

International students

- **While on the whole 21% of international students that graduated between 2005 and 2016 found employment in Estonia, for graduates of 2016 this number is 26%,** including 39% of graduates from master's programmes and 28% of graduates from doctoral programmes. The percentages of international students that remained in the Estonian labour market after graduation are higher among graduates from technology (41%), ICT (38%) and manufacturing and processing (35%) programmes, but also among graduates from social and behavioural sciences programmes (24%).

- Of the 21% of international students that remained in Estonia after graduating in 2016, **nearly one in five is employed in education** (70% in universities), **another one in five in information and communication** (mainly in the field of programming – approximately 60%), **nearly 10% in the processing industry** (about one in three in the field of communication equipment manufacturing), 7% in professional activities, research and technology (one in five of which in the field of translation and interpreting).
- **In general, local graduates from higher education earn more than international graduates who have remained in Estonia**, regardless of the level of educational attainment. The average income from employment for an international graduate from higher education is €1,393, which is 5% less than for local graduates. The pay gap is bigger for graduates from master's programmes: foreign holders of a master's degree earn 18% less than local graduates. The pay gap between local and foreign graduates from doctoral programmes is nearly nonexistent (2%).

Graduates from general and vocational upper secondary education

- People that have completed upper secondary education have a wide range of choices available to them: while general upper secondary school graduates normally continue their education, those that complete vocational secondary education enter the labour market. 73% of vocational secondary education graduates are employed, while only 11% of these combine work and studies. While 63% of those that have completed general upper secondary education are in employment, 39% of them combine work and studies.
- **The salaries of those that have completed vocational and general upper secondary education converge over time.** For example, six years after completing their education, the average salary of those with general upper secondary education is €987, and of those with vocational secondary education €996. People with upper secondary education that have acquired additional skills and knowledge in formal education during this period do better in terms of income.

Labour market success has been surveyed annually since 2015 by combining data of different administrative sources (Estonian Education Information System, Tax and Customs Board, Population Register, Estonian Unemployment Insurance Fund, Social Insurance Board and National Defense Obligation Register). The reports give an overview of the labour market status and income levels for VET and HE graduates, depending on the types and levels of study, specialties, gender and other factors. The 2019 analysis focuses on 3 topics: income and employment status of 2017 graduates, post-graduate activity of foreign students, and correspondence between the field of study and employment of VET and HE graduates.